McLELLAND

AVD-800P

8 ZONES AUDIO/ VIDEO MULTI-ROOM/
SOURCES DISTRIBUTION AMPLIFIER

If you are looking for a security (Indoor & Outdoor) with the multi zones provided for both Audio / Video sources, and to improve your unique lifestyle, we are proud to introduce you the high quality McLelland AVD -800P.

IMPORTANT SAFETY INSTR UCTIONS

INSTRUCTIONS PER TA INING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

CAUTION:
TO REDUCETHE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Read Instructions
The Owner's Manualshould be read and understood before operation of your unit. Please, save these instructions for future reference.

Packaging
Keep the box and packaging materials, in case the unit needs to be returned for service.

Warning
When using electric products, basic precautions should always be followed, including the following:

Power Souces
Your unit should be connected to a power source only of the voltage specified in the owners manual or as marked on the unit. This unit has a polarized plug. Do not use with an extension cord or receptacle unless the plug can be fully inserted. Precautions should be taken so that the grounding scheme on the unit is not defeated.

Hazards
Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious personal injury and serious damage to the product. Use only with cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer.

The apparatus should not be exposed to dripping or splashing water; no objects filled with liquids should be placed on the apparatus.

Terminals marked with the "lightning bolt" are hazardous live; the external wiring connected to these terminals require installation by an instructed person or the use of ready made leads or cords.

Ensure that proper ventilation is provided around the appliance.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

Power Cod
The AC supply cord should be routed so that it is unlikely that it will be damaged. If the AC supply cord is damaged DO NOT OPERATE THE UNIT.

Service
The unit should be serviced only by qualified service personnel.

INSTRUCTIONS RELA TIVES AU RISQUE DE FEU , CHOC ÉLECTRIQUE, OU BLESSURES AUX PERSONNES

AVIS:
AFIN DE REDUIRE LES RISQUE DE CHOC ELECTRIQUE, N'ENLEVEZ APS LE COUVETR (OU LE PANNEAU ARRIERE)
NE CONTIENTAUCUNE PIECE REPARABLE PAR L'UTILISATEUR.
CONSULTEZ UNTECHNICIEN QUALIFIE POUR L' ENTRETIENT

Veuillez Lire le Manuel
Il contient des informations qui devraient êtres comprises avant l'opération de votre appareil. Conservez S.V.P. ces instructions pour consultations ultérieures.

Emballage
Conservez la boite au cas ou l'appareil devait être retourner pour réparation.

Attention:
Lors de l'utilisation de produits électrique, assurez-vous d'adhérer à des précautions de bases incluant celle qui suivent:

Alimentation
L'appareil ne doit être branché qu'à une source d'alimentation correspondant au voltage spécifié dans le manuel ou tel qu'indiqué sur l'appareil. Cet appareil est équipé d'une prise d'alimentation polarisée. Ne pas utiliser cet appareil avec un cordon de raccordement à moins qu'il soit possible d'insérer complètement les trois lames. Des précautions doivent êtres prises afin d'eviter que le système de mise à la terre de l'appareil ne soit désengagé.

Risque
Ne pas placer cet appareil sur un chariot, un support, un trépied ou une table instables. L'appareil pourrait tomber et blesser quelqu'un ou subir des dommages importants. Utiliser seulement un chariot, un support, un trépied ou une table recommandés par le fabricant ou vendus avec le produit. Suivre les instructions du fabricant pour installer l'appareil et utiliser les accessoires recommandés par le fabricant.

Il convient de ne pas placer sur l'appareil de sources de flammes nues, telles que des bougies allumées.

L'appeil ne doit pas être exposé à des égouttements d'eau ou des éclaboussures et qu'aucun objet rempli de liquide tel que des vases ne doit être placé sur l'appareil.

Assurez que lappareil est fourni de la propre ventilation.

Les dispositifs marqués d'une symbole "d'éclair" sont des parties dangereuses au toucher et que les câblages extérieurs connectés à ces dispositifs de connection extérieure doivent être effectivés par un opérateur formé ou en utilisant des cordons déjà préparés.

Cordon d ' Alimentatio
Évitez d'endommager le cordon d'alimentation. N'UTILISEZ PAS L'APPAREIL si le cordon d'alimentation est endommagé.

Service
Consultez un technicien qualifié pour l'entretien de votre appareil.

AVD-800P 8 ZONES AUDIO/ VIDEO MULTI-ROOM/ SOURCES DISTRIBUTION AMPLIFIER

McLELLAND

SYSTEM OVERVIEW

The AVD-800P is a Ten-source Eight-zone audio/video distribution control system amplifier. The system is included the Control Amplifier, Eight Keypads, Remote Controller and also the IR Emitter can be purchase as an accessories. Together the control amp and the keypads make up a Whole-House Audio/Video Security Entertainment System.

The AVD-800P is shipped to operate basic functions without any programming. Simply by plugging in keypads via standard CAT-5 RJ45 terminated patch cable and powering the controller 'on', you can control the Source Selection, Volume Up/Down and Speaker Mute capabilities.

The System Feature:

* Output Power: 20W x 8 Zone (16 Channels).
* UTP CAT5 Transmission System
* 8 RJ45 Connectors: For keypads including video signal output.
* Control the Volume / Treble / Bass / Source / Mute / Balance of each Eight zones from the HRC-1 Remote Controller.
* Two Control Amps can be linked to create systems with up to Sixteen Zones (Maximum Expand System: 16 x AVD-800P for 128 Zones)
* Independent IR Emitter output for each zone.
* Trigger On and External Mute jack on rear panel.
* DIP switch for AGC level and AGC off on rear panel.
* Distribute amplified Stereo Audio and Video from Ten Independent source to Eight Separate Zones
* Power Supply: AC 115V 60 Hz / 230V 50 Hz, Can be switched.
* Dimension: D 413 x H 88 x W 427 mm.

ABOUT THE INSTALLATION

Thank you for inviting the McLelland AVD-800P Audio/Video Distribution System into your home/security place. The following is a quick setup guide for general system installation and operation of the AVD-800P.

Step 1: Place the AVD-800P amplifier in its preferred location. The AVD-800P amplifier is designed to be located in the central control area where the home's audio sources will be housed.

Step 2: The AVD-800P amplifier should be turned on before any other cables are attached to it. This activates internal protective circuitry. Once the AVD-800P amplifier is turned on, it should be left on.

Step 3: Connect the audio/video sources to the AVD-800P inputs using standard stereo RCA cables.

Step 4: Connect the video camera sources to the AVD-800P inputs using an RJ-45 CAT5 cables.

Step 5: Using the CAT5 cable in the RJ-45 connection jack on the back of the AVD-KP-1 and in the Keypad Comm connector on the back of the AVD-800P amplifier.

Step 6: When the Keypads are added to each zone, the system will poll for available zones and allow you to choose the appropriate zone number for that keypad. Once a zone number is assigned the keypad will assume control of the zone.

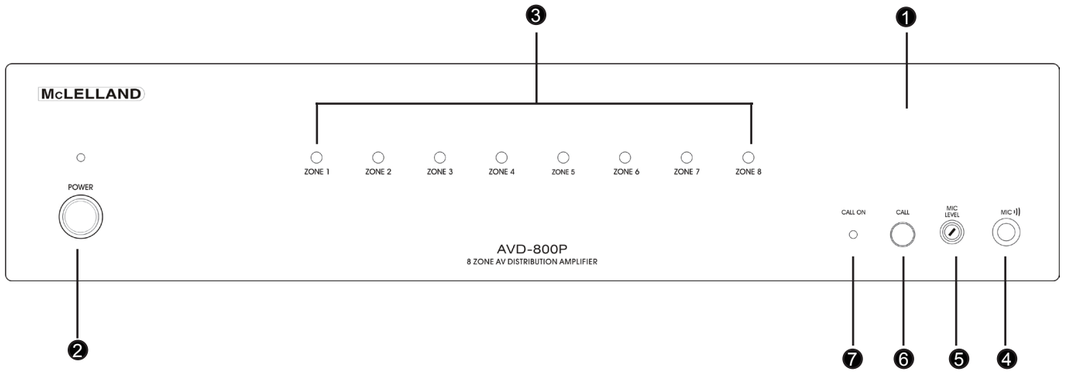
The AVD-800P System includes the following components:

* AVD-800P Controller / Amplifier x 1
* AVD-KP1 Keypads x 8
* KP-C Cover x 24 (Black x 8 + Ivory x 8 + White x 8)
* WPC Cover x 24 (Black x 8 + Ivory x 8 + White x 8)
* HRC-1 Remote Control x 1
* AVD-800P System Installation Instructions

Optional Accessories:

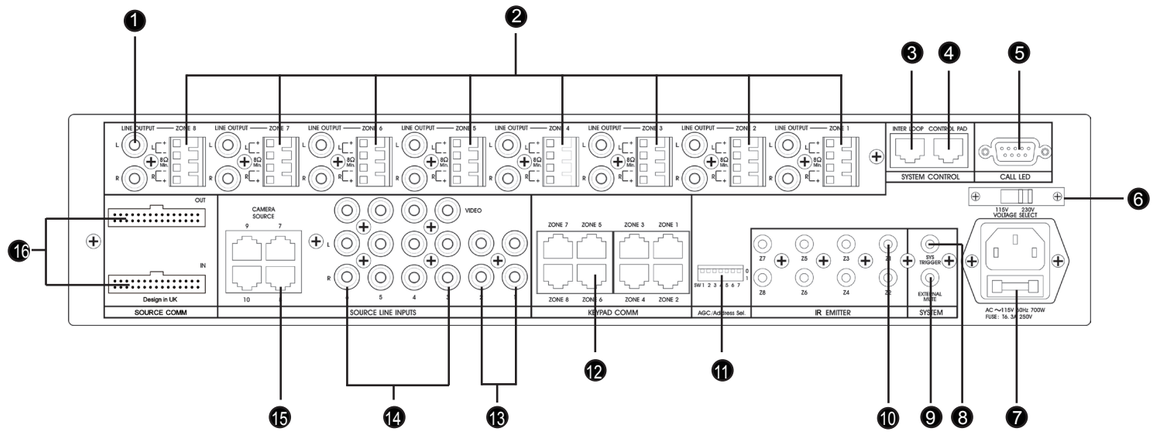
* IE-1 IR Emitter

AVD-800P FRONT PANEL FEATURES AND CONNECTIONS



1. Front Panel.
2. Master Power On/Off Switch: Turns AC power On/Off to the entire unit.
3. Zone LED Indicators: Eight indicators, one for each Zone
4. Microphone Input: Use this jack to connect a mircophone to the amplifier.
5. Mic Level Control: Use this VR to adjust the microphone volume without changing the overall mix
6. Call: The Call function can be turned on with this button.
7. Call On: This LED lights to indicate when the Call function has be turn on.

AVD-800P REAR PANEL FEATURES AND CONNECTIONS



The design is powerful to combine and distribute audio/ video security Camera sources with this unique unit in your site-place.

1. Preamp Line Out (1-8): L+R stereo RCA Jacks for connecting Zone Audio Output to an external amplifier. For use with applications where either more power is required for Zone (see Figure 1)

2. Zone Speaker Output (1-8): Use the included 4-conductor plug-in connector, (8 included) to connect speaker wires to the AVD-800P (see Figure 2)

3. Inter Data Loop: This RS-485 data controller can loop control up to 16 AVD-800P units of expand to 128 places (see Figure 3)

4. Control Pad: which connected with the ASC-1 system controller; it can control the Eight zone's keypads.

5. Call LED: The Call LED Jack (D-SUB 9 Pin) on the rear panel can connect with Call LED Display Box, when user prints anyone of the zone "Call" key press, the corresponding zone LED will be illuminant and active sounder.

6. Voltage Select: Can be switched between AC 115V 60 Hz / 230V 50 Hz.

7. AC Power Input: Standard IEC 3-Conductor AC Line Cord Receptacle for plug-in of a 3-conductot power line cord.

8. SYS Trigger: The System Trigger Jack will be showing the H (DC 12V) output when the all 8 zone sources were powered on or at least one zone is powered on.
The System Trigger Jack will be showing the L (DC 0V) output when the all 8 zone sources were powered off or at least on zone is powered off

9. External Mute: When the extra DC 3-12V input used by this Jack, it will be show the Mute condition with all zones of AVD-800P

10. IR Remote Emitter (1-8): Those 3.5mm Mono Mini Phone Jacks are use for plug the supplied IR emitters into the appropriate IR Emitter jacks to individually control the 8 common source components. (see Figure 4)

11. AGC/Address Select: Using the Address & AGC (Auto Gain Control), no need to regulate the volume of each source, the volume of output will automatic to be ranged at the same level. (see Figure 5)

12. Keypad Output (1-8): Each Zone has one RJ-45 jack for keypad interface. Connect the zone CAT5 cable to the Keypad Output Terminal n the AVD-800P keypad rear panel. (see Figure 6 & 7)

13. Zone Audio Input: Stereo RCA Jacks for stereo line level audio input from source. (see Figure 8)

14. Zone Audio/Video Input: RCA Jacks for composite video input from source components. (see Figure 9)

15. Video Camera Input: Which designed used the UTP camera as mainstream do the bidirectional electric transfers by CAT5 cables/connectors, it will be had no use for another power and transfer could be controller remotely.

16. Input Source (Signal) Loop In/Out: Re-In/Output 10 Audio/Video sources to other AVD-800P with IDC Flat Cable.

Figure 1: Preamp Line Out

Each Zone has a Preamp Out to send “Zone Selected” by L+R stereo RCA Jacks for use with applications where either more power is required for Zone or passing to other separate higher power amplifier, such as the McLelland PD-100/200/500 or PD-300/600SB.

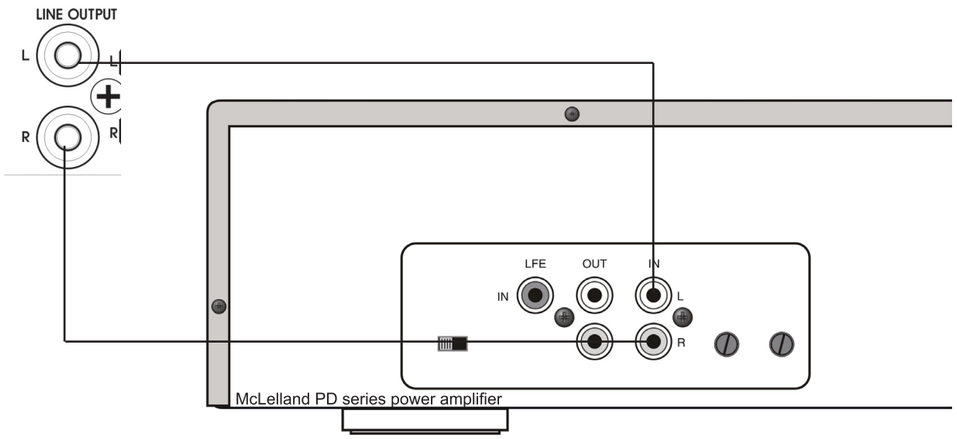


Figure 2: Speaker Connections

Each conductor is screwed down to connector block and plugged into the speaker output on the back of the amplifier. The AVD-800P speaker terminals (amplifier output) are 8 ohms safe, please be sure to correct polarity by connecting the “+” and “-“ terminal from each channel on the AVD-800P to the corresponding “+” and “-“ terminal on each speaker. Also need to check the combined impedance presented to the speaker terminals by the speaker is 8 ohms minimum.

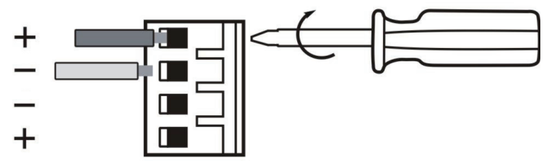


Figure 3: Zone Expansion (Connecting Two AVD-800P Controller)

When linking two units together, designate one unit as the Primary Unit (Zone 1~8) and the other unit as the Secondary Unit (Zone 9~16). All source components should be connected directly to the Primary Unit Source A/V Input. Us the Primary Units Audio and Video Loop to feed the source component inputs of the Secondary Unit.

* All of the source components emitters should be connected directly to the Primary Unit IR Emitter Output Ports.

Figure 4: IR Emitters Connections

There is Eight IR emitters are supplied with your AVD-800P System, which can be IR Commands for the source equipment are transferred from the AVD-800P amplifier to the source equipment using the mini IR emitters. Just plugged into the corresponding source IR output on the AVD-800P and then placed over the IR receiver window on the source component. Compatible with most brands of remote controls, though some may not be programmable and will therefore only control the source components.

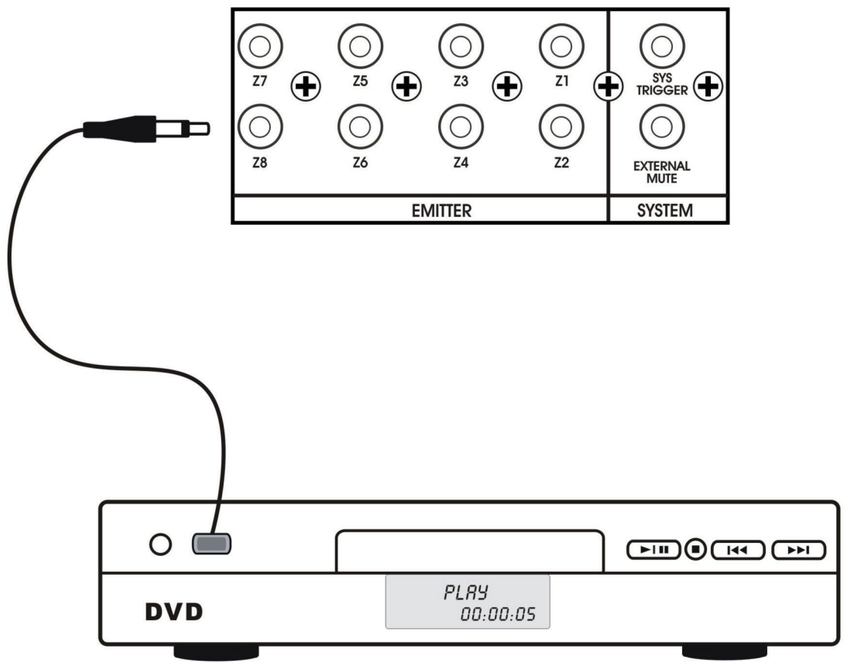


Figure 5: ADDRESS/AGC DIP Switch Setting

The AVD-800P DIP switch show the 7 Pin through Check selection, the 1-5 are Address Select, Pin 6 is the front panel broadcast function selection and when the Pin 6 is at "1" position , this unit show the broadcast to the zone which has powered on, when Pin 6 is at "0" position, if used broadcast, the unit will cut all the zone and show the broadcast through these although the zone at the Standby position, it will be also cut to broadcase.

Pin7 = AGC Select,
0 = AGC Enable,
1 = AGC Disable.

For Example: If Master = DIP SW 12345 switch to the "0" position, Slave 1 = DIP SW 1234 switch to the "0" position, SW 5 switch to the "1" position.

Note: All the modification of the DIP Switch (including AGC) must be action after the restart of the AVD-800P

S151 DIP SW 1,2,3,4,5	SLAVE#
0 0 0 0 0	MASTER
0 0 0 0 1	SLAVE1
0 0 0 1 0	SLAVE2
0 0 0 1 1	SLAVE3
0 0 1 0 0	SLAVE4
0 0 1 0 1	SLAVE5
0 0 1 1 0	SLAVE6
0 0 1 1 1	SLAVE7

S151 DIP SW 1,2,3,4,5	SLAVE#
0 1 0 0 0	SLAVE8
0 1 0 0 1	SLAVE9
0 1 0 1 0	SLAVE10
0 1 0 1 1	SLAVE11
0 1 1 1 0	SLAVE12
0 1 1 1 1	SLAVE13
1 0 0 0 0	SLAVE14
0 1 1 1 1	SLAVE15

S151 DIP SW 1,2,3,4,5	SLAVE#
1 0 0 0 0	SLAVE16
1 0 0 0 1	SLAVE17
1 0 0 1 0	SLAVE18
1 0 0 1 1	SLAVE19
1 0 1 0 0	SLAVE20
1 0 1 0 1	SLAVE21
1 0 1 1 0	SLAVE22
1 0 1 1 1	SLAVE23

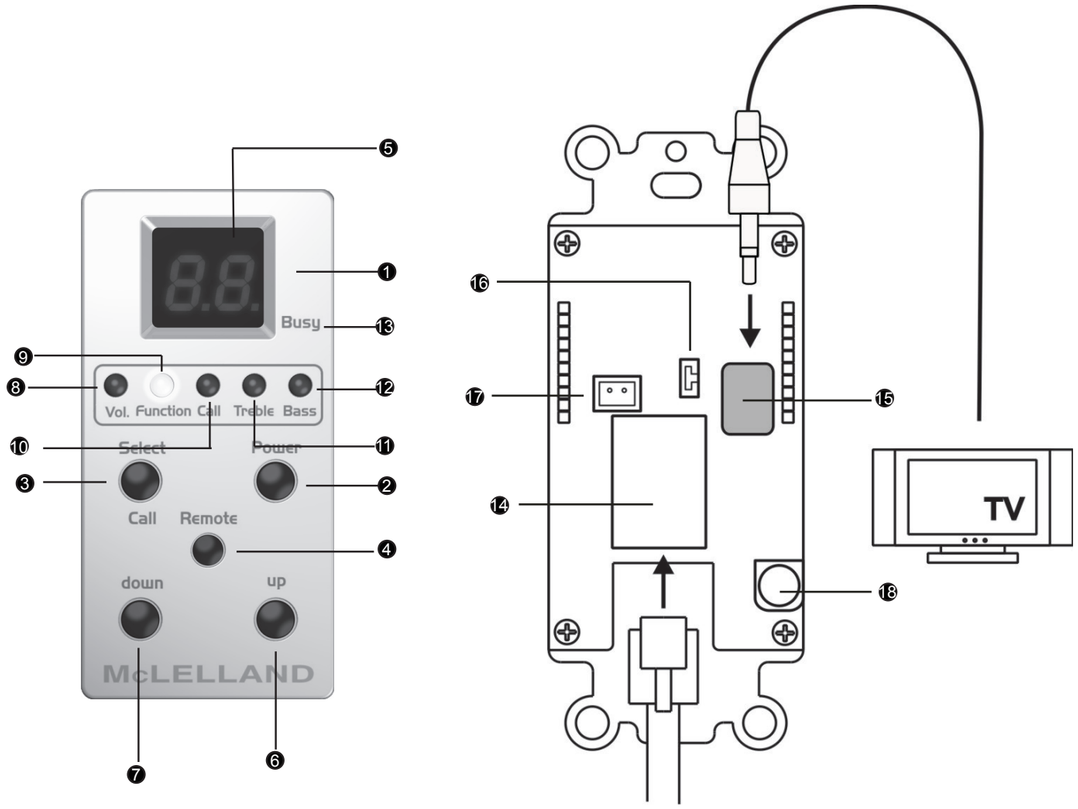
S151 DIP SW 1,2,3,4,5	SLAVE#
1 1 0 0 0	SLAVE24
1 1 0 0 1	SLAVE25
1 1 0 1 0	SLAVE26
1 1 0 1 1	SLAVE27
1 1 1 0 0	SLAVE28
1 1 1 0 1	SLAVE29
1 1 1 1 0	SLAVE30
1 1 1 1 1	SLAVE31

EX: If Master = DIP SW 12345 switch to the "0" position, Slave 1 = DIP SW 1234 switch to the "0" position, SW 5 switch to the "1" position.

Note: All the modification of the DIP Switch (including AGC) must be action after the restart of the AVD-800P

Figure 6: Keypad Panel Features And Functions

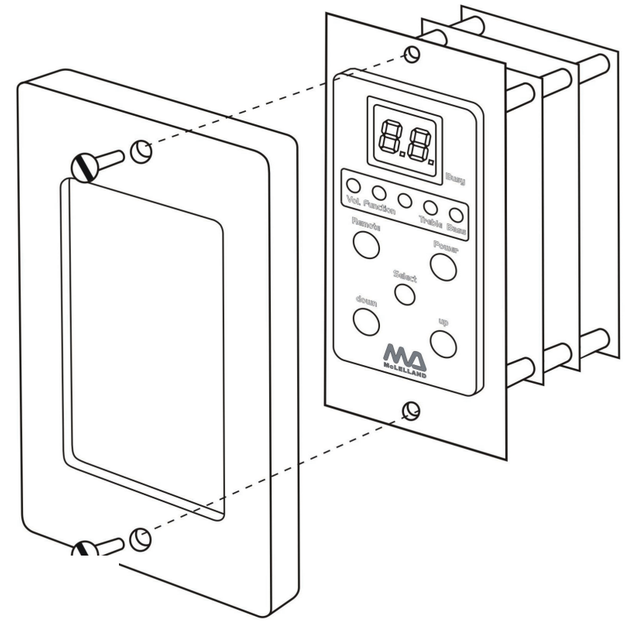
The AVD-800P AVD-KP1 Keypad controllers contain the selected sources by simply pressing one of the keypads. All buttons are made by soft rubber LED back lights. The center of keypad is a multi-function cursor array for controlling source/zone components selection; adjust zone bass/treble/volume, and also feature IR pass-though and confirmation.



1.AVD-KP1 Keypad
2.Power: Turns the zone ON an OFF. Can be programmed with IR codes or sequences.
3.Select (Call): This bottom can be use for selected the system function of each zone, and also can be use as for panic call button (hold 3 sec)
4.Remote (IR Sensor): The keypad gas build-in receiver for complete wireless control , also can be receives IR from hand-held remotes to control both source components and the AVD-800P system.
5.LED Display: When the zone power is ON, the LED will indicate the selects source, zone volume level.
6.Up: Increases zone source/volume/treble/bass, depends which function LED indicated.
7.Down: Decreases zone source/volume/treble/bass, depends which function LED indicated.
8.Vol: This LED lights to indicate when the volume function has be select
9.Function: The function led show the connection well with the main unit AVD-800p by the cables
10.Call: This LED lights to indicate when the Call function has be turn on.
11.Treble: This LED lights to indicate when the treble function has be select
12.Bass: This LED lights to indicate when the bass function has be select.
13.Busy: When the Busy LED came to light, it show that the control circuitry was busy, if on this station, the operation of keypad or remote control will be incorrectness.
14.Controller Terminal: RJ45 Jack connects Keypad to zone keypad input on AVD-800P controller via CAT5 cable.
15.Video Output: RCA Jack connects Keypad to TV or Monitor.
16.Camera Scan Switch: When Open, the camera (Source 7-10) Disable, Camera can not be output from Keypad and IR Remote Control Camera Scan Key Disable Operation)
When Short, the camera resume to action (Camera Enable / Disable must be re-power on)
17. Call Tact Switch Connection Jack: Action as Call Key of IR Remote.
18. Video Gain Control SVR: Adjust Video output of Keypad, adjustable range 0-+6dB

Figure 7: Keypad Installation

Keypad mounting for the AVD-KP1 has no need a junction box, which can be mounted on drywall, button board or other surfaces covering a hollow wall.



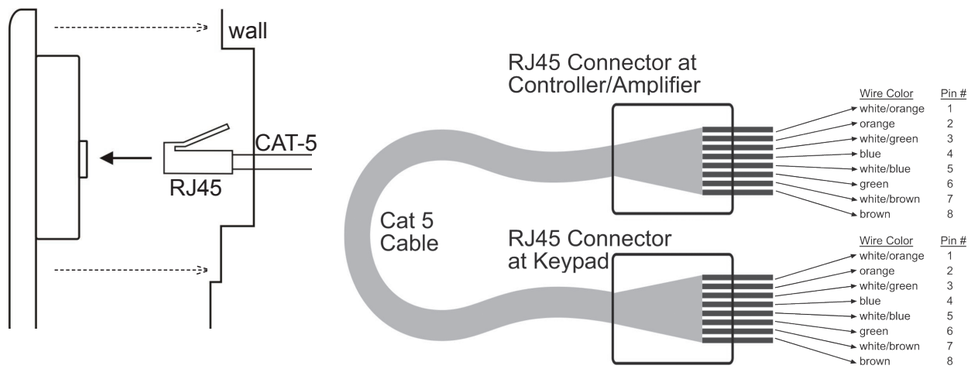


Figure 8: Audio Connections

Using the RCA type patch cables connect the Left and Right Output jacks of the source component (CD, Tuner, etc) to the appropriate source Audio Left and Audio Right Input Jacks on the AVD-800P.

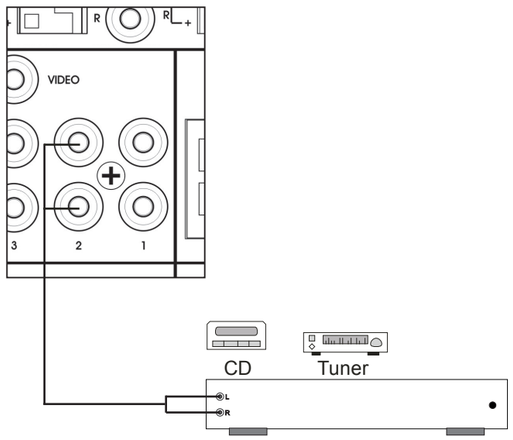
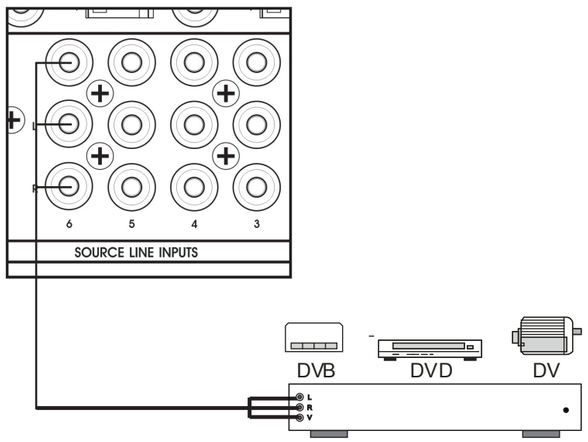
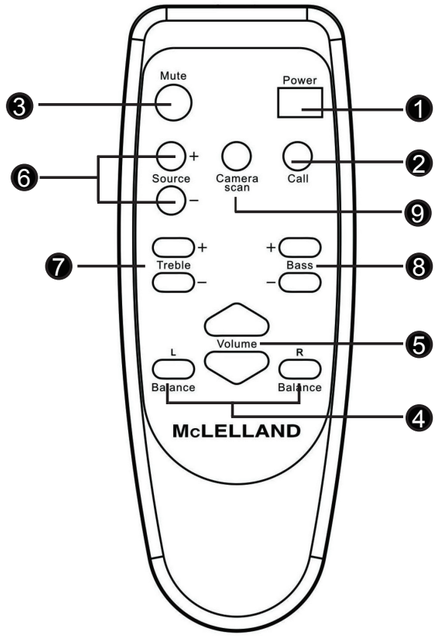


Figure 9: Video Connections:

Using the RCA type patch cables connect the Video and Audio (Left/Right) Output jacks of the source component (DVD Player, DVB, DV) to the appropriate source Video and Audio (Left/ Right) Input Jacks on the AVD-800P.



Remote Control



1. Power: This button is for power switches (On/Off) for the certain zone.

2. Call : This button is turn on the call function.

3. Mute: It allows you to mute a certain zone.

4. BAL: These L & R buttons can adjust the balance of L/R channel in stereo mode.

5. VOL: Volume adjustment for users.

6. Source: Used to select signal input.

7. Treble: This allows you to enhance or reduce Treble of signal in individual zone.

8. Bass: This allows you to adjust the Bass for the individual zone

9. Camera Scan Switch: This button is turn on/off the Camera Scan function. When the function is turn on, all video camera input sources will display-sequence switching from source 7 to 10.

AVD-800P SPECIFICATION

Zones 1-8 Power Amplifier Outputs	
Continuous Average Output Power	40W (20W x 2)
Two channels driven 30-20kHz @10%THD	
Rated Distortion (1/2 power)	0.4 %
Rated Impedance	8 Ohms
Frequency Response	20-20kHz +/- 2dB
Bass Control Range	+/- 9 dB @ 100 Hz
Treble Control Range	+/- 9 dB @ 10 KHz

Zones 1-8 Preamplifier Outputs	
Varivale output	1 V
Impedance	600 Ohms

Audio Source Inputs 1-2	
Input Impedance	20K
Input Sensitivity for rated power	300 mV RMS
Input Overload	2V RMS

Audio/Video Source Inputs 3-6	
Input Impedance	20K
Input Sensitivity for rated power	600 mV RMS
Input Overload	3V RMS

Video Source Inputs 3-10	
Input Impedance	75 Ohm
Input Sensitivity for rated power	1.0V P to P

Emitter Outputs	
Source Outputs	8
Output Drive Current	100mA
Output Drive Voltage	5V
Compatible with single and dual emitters	

System	
System On (output)	12V @ 50mA
External Mute (input)	3-12V DC

Power Requirements	
Power Supply	117VAC/230VAC 50/60Hz
Power Consumption all channels driven to full-rated power driven to full-rated power	750VA
Power Consumption no signal	50VA (25W)

McLELLAND

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